

# **PATENT**

## **FRENCH PETROLEUM INSTITUTE**

### **Process for Heat Treatment of Hydrocarbon Feedstocks by a Furnace that is Equipped with Radiant Burners**

**Invention by Gérard MARTIN, Luc NOUGIER, and Etienne LEBAS**

#### **ABSTRACT:**

The invention consists of an application of radiant burners to furnaces for heat treatment of hydrocarbon feedstocks in which the feedstock that is to be treated circulates inside an exchange tube bundle that receives the heat that is emitted by the burners essentially by radiation and for which a strict monitoring of the temperature profile along the exchange bundle is necessary. Applied to steam-cracking furnaces, the invention makes it possible to increase the propylene yield to iso ethylene yield. It also makes it possible to increase the compactness of the furnace and the longevity of the exchange bundle and to reduce the NO<sub>x</sub> emissions.

Figure 5 to be published.